```
                                    K 6







EEEEEEEEEEEEEEE  RRRRRRRRRRRR     FFFFFFFFFFFFFFF
EEEEEEEEEEEEEEE  RRRRRRRRRRRR     FFFFFFFFFFFFFFF
EEEEEEEEEEEEEEE  RRRRRRRRRRRR     FFFFFFFFFFFFFFF
EEE              RRR         RRR  FFF
EEE              RRR         RRR  FFF
EEE              RRR         RRR  FFF
EEE              RRR         RRR  FFF
EEE              RRR         RRR  FFF
EEE              RRR         RRR  FFF
EEEEEEEEEEEE     RRRRRRRRRRRR     FFFFFFFFFFFF
EEEEEEEEEEEE     RRRRRRRRRRRR     FFFFFFFFFFFF
EEEEEEEEEEEE     RRRRRRRRRRRR     FFFFFFFFFFFF
EEE              RRR   RRR        FFF
EEE              RRR   RRR        FFF
EEE              RRR   RRR        FFF
EEE              RRR      RRR     FFF
EEE              RRR      RRR     FFF
EEE              RRR      RRR     FFF
EEEEEEEEEEEEEEE  RRR         RRR  FFF
EEEEEEEEEEEEEEE  RRR         RRR  FFF
EEEEEEEEEEEEEEE  RRR         RRR  FFF
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**FILE**ID**DECODECC                                   H 5








DDDDDDDD    EEEEEEEEEE     CCCCCCCC    OOOOOO    DDDDDDDD    EEEEEEEEEE     CCCCCCCC    CCCCCCCC
DDDDDDDD    EEEEEEEEEE     CCCCCCCC    OOOOOO    DDDDDDDD    EEEEEEEEEE     CCCCCCCC    CCCCCCCC
DD      DD  EE           CC           OO     OO   DD      DD  EE           CC          CC
DD      DD  EE           CC           OO     OO   DD      DD  EE           CC          CC
DD      DD  EE           CC           OO     OO   DD      DD  EE           CC          CC
DD      DD  EE           CC           OO     OO   DD      DD  EE           CC          CC
DD      DD  EEEEEEEE     CC           OO     OO   DD      DD  EEEEEEEE     CC          CC
DD      DD  EEEEEEEE     CC           OO     OO   DD      DD  EEEEEEEE     CC          CC
DD      DD  EE           CC           OO     OO   DD      DD  EE           CC          CC
DD      DD  EE           CC           OO     OO   DD      DD  EE           CC          CC
DD      DD  EE           CC           OO     OO   DD      DD  EE           CC          CC
DD      DD  EE           CC           OO     OO   DD      DD  EE           CC          CC
DDDDDDDD    EEEEEEEEEE     CCCCCCCC    OOOOOO    DDDDDDDD    EEEEEEEEEE     CCCCCCCC    CCCCCCCC       ::::
DDDDDDDD    EEEEEEEEEE     CCCCCCCC    OOOOOO    DDDDDDDD    EEEEEEEEEE     CCCCCCCC    CCCCCCCC       ::::


LL            IIIIII       SSSSSSSS
LL            IIIIII       SSSSSSSS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II        SSSSSS
LL              II        SSSSSS
LL              II               SS
LL              II               SS
LL              II               SS
LL              II               SS
LLLLLLLLLL    IIIIII     SSSSSSSS
LLLLLLLLLL    IIIIII     SSSSSSSS
```

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DHE

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 0
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```
C
C Version:     'V04-000'
C
C****************************************************************************
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C*                                                                          *
C*                                                                          *
C****************************************************************************
C
C       AUTHOR  BRIAN PORTER            CREATION DATE   29-MAY-1979
C

C++
C       Functional description:
C
C       This module decodes syndrome bits.  If it can be determined that a
C       double bit failure has occured then -1 is returned.  Otherwise
C       a failing bit position is returned.
C
C       Modified by:
C
C       v03-001 BP0004          Brian Porter,           23-MAR-1982
C               Corrected bug in syndrome array.
C**
C--

        integer*4 function decode_ecc (error_syndrome,
        1 sbi_configuration_register)


        include 'src$:msghdr.for /nolist'



        byte            error_syndrome

        integer*4       sbi_configuration_register

        byte            ms780e_syndrome(0:38)

        data            ms780e_syndrome(0)      /'4f'x/

        data            ms780e_syndrome(1)      /'4a'x/

        data            ms780e_syndrome(2)      /'52'x/

        data            ms780e_syndrome(3)      /'54'x/

        data            ms780e_syndrome(4)      /'57'x/

        data            ms780e_syndrome(5)      /'58'x/

        data            ms780e_syndrome(6)      /'5b'x/

        data            ms780e_syndrome(7)      /'5d'x/

        data            ms780e_syndrome(8)      /'23'x/

        data            ms780e_syndrome(9)      /'25'x/

        data            ms780e_syndrome(10)     /'26'x/

        data            ms780e_syndrome(11)     /'29'x/

        data            ms780e_syndrome(12)     /'2a'x/

        data            ms780e_syndrome(13)     /'2c'x/

        data            ms780e_syndrome(14)     /'31'x/

        data            ms780e_syndrome(15)     /'34'x/

        data            ms780e_syndrome(16)     /'0e'x/

        data            ms780e_syndrome(17)     /'0b'x/

        data            ms780e_syndrome(18)     /'13'x/

        data            ms780e_syndrome(19)     /'15'x/

        data            ms780e_syndrome(20)     /'16'x/

        data            ms780e_syndrome(21)     /'19'x/

        data            ms780e_syndrome(22)     /'1a'x/

        data            ms780e_syndrome(23)     /'1c'x/

        data            ms780e_syndrome(24)     /'62'x/

        data            ms780e_syndrome(25)     /'64'x/

        data            ms780e_syndrome(26)     /'67'x/

        data            ms780e_syndrome(27)     /'68'x/

        data            ms780e_syndrome(28)     /'6b'x/
        data            ms780e_syndrome(29)     /'6d'x/

        data            ms780e_syndrome(30)     /'70'x/

        data            ms780e_syndrome(31)     /'75'x/

        data            ms780e_syndrome(32)     /'01'x/

        data            ms780e_syndrome(33)     /'04'x/

        data            ms780e_syndrome(34)     /'02'x/

        data            ms780e_syndrome(35)     /'08'x/

        data            ms780e_syndrome(36)     /'10'x/

        data            ms780e_syndrome(37)     /'20'x/

        data            ms780e_syndrome(38)     /'40'x/

        byte            mx780_syndrome(0:71)

        data            mx780_syndrome(0)       /'38'x/

        data            mx780_syndrome(1)       /'19'x/

        data            mx780_syndrome(2)       /'1a'x/

        data            mx780_syndrome(3)       /'3b'x/

        data            mx780_syndrome(4)       /'1c'x/

        data            mx780_syndrome(5)       /'3d'x/

        data            mx780_syndrome(6)       /'3e'x/

        data            mx780_syndrome(7)       /'1f'x/

        data            mx780_syndrome(8)       /'68'x/

        data            mx780_syndrome(9)       /'49'x/

        data            mx780_syndrome(10)      /'4a'x/

        data            mx780_syndrome(11)      /'6b'x/

        data            mx780_syndrome(12)      /'4c'x/

        data            mx780_syndrome(13)      /'6d'x/

        data            mx780_syndrome(14)      /'6e'x/

        data            mx780_syndrome(15)      /'4f'x/

        data            mx780_syndrome(16)      /'70'x/

        data            mx780_syndrome(17)      /'51'x/

        data            mx780_syndrome(18)      /'52'x/

        data            mx780_syndrome(19)      /'73'x/

        data            mx780_syndrome(20)      /'54'x/

        data            mx780_syndrome(21)      /'75'x/

        data            mx780_syndrome(22)      /'76'x/

        data            mx780_syndrome(23)      /'56'x/

        data            mx780_syndrome(24)      /'58'x/

        data            mx780_syndrome(25)      /'79'x/

        data            mx780_syndrome(26)      /'7a'x/

        data            mx780_syndrome(27)      /'5b'x/

        data            mx780_syndrome(28)      /'7c'x/

        data            mx780_syndrome(29)      /'5d'x/

        data            mx780_syndrome(30)      /'5e'x/

        data            mx780_syndrome(31)      /'7f'x/

        data            mx780_syndrome(32)      /'a8'x/

        data            mx780_syndrome(33)      /'89'x/

        data            mx780_syndrome(34)      /'8a'x/

        data            mx780_syndrome(35)      /'ab'x/

        data            mx780_syndrome(36)      /'8c'x/

        data            mx780_syndrome(37)      /'ad'x/

        data            mx780_syndrome(38)      /'ae'x/

        data            mx780_syndrome(39)      /'8f'x/

        data            mx780_syndrome(40)      /'b0'x/

        data            mx780_syndrome(41)      /'91'x/

        data            mx780_syndrome(42)      /'92'x/

        data            mx780_syndrome(43)      /'b3'x/

        data            mx780_syndrome(44)      /'94'x/

        data            mx780_syndrome(45)      /'b5'x/

        data            mx780_syndrome(46)      /'b6'x/

        data            mx780_syndrome(47)      /'97'x/

        data            mx780_syndrome(48)      /'98'x/

        data            mx780_syndrome(49)      /'b9'x/

        data            mx780_syndrome(50)      /'ba'x/

        data            mx780_syndrome(51)      /'9b'x/

        data            mx780_syndrome(52)      /'bc'x/

        data            mx780_syndrome(53)      /'9d'x/

        data            mx780_syndrome(54)      /'9e'x/

        data            mx780_syndrome(55)      /'bf'x/

        data            mx780_syndrome(56)      /'e0'x/

        data            mx780_syndrome(57)      /'c1'x/

        data            mx780_syndrome(58)      /'c2'x/

        data            mx780_syndrome(59)      /'e3'x/

        data            mx780_syndrome(60)      /'c4'x/

        data            mx780_syndrome(61)      /'e5'x/

        data            mx780_syndrome(62)      /'e6'x/

        data            mx780_syndrome(63)      /'c7'x/

        data            mx780_syndrome(64)      /'01'x/

        data            mx780_syndrome(65)      /'02'x/

        data            mx780_syndrome(66)      /'04'x/

        data            mx780_syndrome(67)      /'08'x/

        data            mx780_syndrome(68)      /'10'x/

        data            mx780_syndrome(69)      /'20'x/

        data            mx780_syndrome(70)      /'40'x/

        data            mx780_syndrome(71)      /'80'x/

        byte            ms7x0_syndrome(0:38)

        data            ms7x0_syndrome(0)       /'58'x/

        data            ms7x0_syndrome(1)       /'19'x/

        data            ms7x0_syndrome(2)       /'1a'x/

        data            ms7x0_syndrome(3)       /'5b'x/

        data            ms7x0_syndrome(4)       /'1c'x/

        data            ms7x0_syndrome(5)       /'5d'x/

        data            ms7x0_syndrome(6)       /'5e'x/

        data            ms7x0_syndrome(7)       /'1f'x/

        data            ms7x0_syndrome(8)       /'68'x/

        data            ms7x0_syndrome(9)       /'29'x/

        data            ms7x0_syndrome(10)      /'2a'x/

        data            ms7x0_syndrome(11)      /'6b'x/

        data            ms7x0_syndrome(12)      /'2c'x/

        data            ms7x0_syndrome(13)      /'6d'x/

        data            ms7x0_syndrome(14)      /'6e'x/

        data            ms7x0_syndrome(15)      /'2f'x/

        data            ms7x0_syndrome(16)      /'70'x/

        data            ms7x0_syndrome(17)      /'31'x/

        data            ms7x0_syndrome(18)      /'32'x/

        data            ms7x0_syndrome(19)      /'73'x/

        data            ms7x0_syndrome(20)      /'34'x/

        data            ms7x0_syndrome(21)      /'75'x/

        data            ms7x0_syndrome(22)      /'76'x/

        data            ms7x0_syndrome(23)      /'37'x/

        data            ms7x0_syndrome(24)      /'38'x/

        data            ms7x0_syndrome(25)      /'79'x/

        data            ms7x0_syndrome(26)      /'7a'x/

        data            ms7x0_syndrome(27)      /'3b'x/

        data            ms7x0_syndrome(28)      /'7c'x/

        data            ms7x0_syndrome(29)      /'3d'x/

        data            ms7x0_syndrome(30)      /'3e'x/

        data            ms7x0_syndrome(31)      /'7f'x/

        data            ms7x0_syndrome(32)      /'01'x/

        data            ms7x0_syndrome(33)      /'02'x/

        data            ms7x0_syndrome(34)      /'04'x/

        data            ms7x0_syndrome(35)      /'08'x/

        data            ms7x0_syndrome(36)      /'10'x/

        data            ms7x0_syndrome(37)      /'20'x/

        data            ms7x0_syndrome(38)      /'40'x/




        decode_ecc = -1

c
c       11/780
c

        if (
        1 lib$extzv(24,8,emb$l_hd_sid) .eq. 255
        1 .or.
        1 lib$extzv(24,8,emb$l_hd_sid) .eq. 1
        1 ) then

c
c       ms780c and ma780
c

        if (
        1 lib$extzv(5,3,sbi_configuration_register) .eq. 0
        1 .or.
        1 lib$extzv(5,3,sbi_configuration_register) .eq. 2
        1 ) then

        do 5,i = 0,71

        if (error_syndrome .eq. mx780_syndrome(i)) decode_ecc = i

5       continue

c
c       ms780e
c

        else if (lib$extzv(5,3,sbi_configuration_register) .eq. 3) then

        do 10,i = 0,38
```

```

                if  (error_syndrome .eq. ms780e_syndrome(i)) decode_ecc = i

        10      continue
                endif

        c
        c       11/750, 11/730
        c

                else if (
                1 lib$extzv(24,8,emb$l_hd_sid) .eq. 2
                1 .or.
                1 lib$extzv(24,8,emb$l_hd_sid) .eq. 3
                1 ) then

                do 15,i = 0,38

                if (error_syndrome .eq. ms7x0_syndrome(i)) decode_ecc = i

        15      continue
                endif

                return

                end


PROGRAM SECTIONS

    Name                                      Bytes   Attributes

  0 $CODE                                       195   PIC CON REL LCL   SHR   EXE   RD NOWRT LONG
  1 $PDATA                                       16   PIC CON REL LCL   SHR NOEXE   RD NOWRT LONG
  2 $LOCAL                                      208   PIC CON REL LCL NOSHR NOEXE   RD   WRT LONG
  3 EMB                                         512   PIC OVR REL GBL   SHR NOEXE   RD   WRT LONG

    Total Space Allocated                       931

ENTRY POINTS

    Address   Type  Name

  0-00000000  I*4   DECODE_ECC

VARIABLES

    Address   Type  Name                                          Address   Type  Name

  3-00000000  I*4   EMB$L_HD_SID                              3-00000004  I*2   EMB$W_HD_ENTRY
  3-0000000E  I*2   EMB$W_HD_ERRSEQ                         AP-00000004@ L*1   ERROR_SYNDROME
  2-0000009C  I*4   I                                       AP-00000008@ I*4   SBI_CONFIGURATION_REGISTER
```

```
ARRAYS

    Address   Type  Name                                         Bytes  Dimensions

  3-00000000  L*1   EMB                                            512  (0:511)
  3-00000006  I*4   EMB$Q_HD_TIME                                    8  (2)
  2-00000000  L*1   MS780E_SYNDROME                                 39  (0:38)
  2-0000006F  L*1   MS7X0_SYNDROME                                  39  (0:38)
  2-00000027  L*1   MX780_SYNDROME                                  72  (0:71)

LABELS

    Address    Label        Address    Label        Address    Label

      **       5              **       10             **       15

FUNCTIONS AND SUBROUTINES REFERENCED

  Type  Name

   I*4  LIB$EXTZV

COMMAND QUALIFIERS

  FORTRAN /LIS=LIS$:DECODECC/OBJ=OBJ$:DECODECC MSRC$:DECODECC

  /CHECK=(NOBOUNDS,OVERFLOW,NOUNDERFLOW)
  /DEBUG=(NOSYMBOLS,TRACEBACK)
  /STANDARD=(NOSYNTAX,NOSOURCE_FORM)
  /SHOW=(NOPREPROCESSOR,NOINCLUDE,MAP)
  /F77  /NOG_FLOATING  /I4  /OPTIMIZE  /WARNINGS  /NOD_LINES  /NOCROSS_REFERENCE  /NOMACHINE_CODE  /CONTINUATIONS=19

COMPILATION STATISTICS

  Run Time:             3.01 seconds
  Elapsed Time:         8.01 seconds
  Page Faults:          144
  Dynamic Memory:       179 pages
```

0147 AH-BT13A-SE
VAX/VMS V4.0

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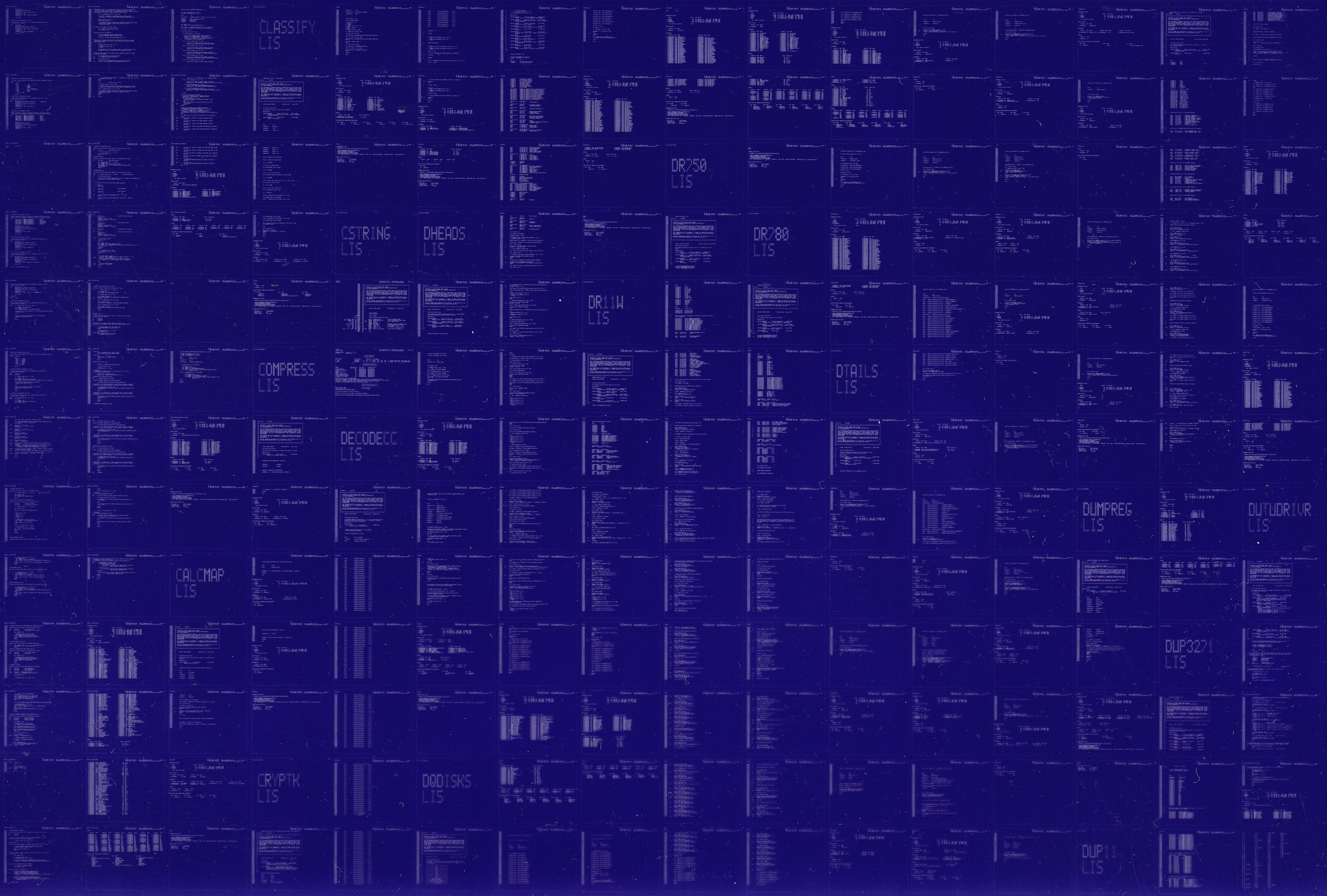

CALCMAP
LIS

CLASSIFY
LIS

COMPRESS
LIS

CRYPTK
LIS

CSTRING
LIS

DECODECC
LIS

DHEADS
LIS

DQDISKS
LIS

DR11W
LIS

DR750
LIS

DR780
LIS

DTAILS
LIS

DUMPREG
LIS

DUP11
LIS

DUP3271
LIS

DUTUDRIVR
LIS